

Maintenance and Service Guide Z34c G3 model

SUMMARY

This guide provides information about spare parts, removal and replacement of parts, diagnostic tests, problem troubleshooting, and more.

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Assembly part number: M44761-001

Product notice

Only trained service personnel familiar with this product should service it. Before performing any maintenance or service, be sure to read "Important Safety Information".

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1. Getting started

Read this chapter to learn about safety information and where to find additional HP resources.

Important safety information

Carefully read the cautions and notes within this document to minimize the risk of personal injury to service personnel. The cautions and notes are not exhaustive. Proper service methods are important to the safe, reliable operation of equipment. Improper service methods can damage equipment.

The service procedures recommended and described in this service manual provide effective methods of performing service operations. Service engineers should have prior repair knowledge and experience as well as appropriate training for the product before performing service procedures.

- Be sure your working environment is dry and clean and meets all government safety requirements.
- Be sure that other persons are safe while you are servicing the product.
- Do not perform any action that can cause a hazard to the customer or make the product unsafe.
- Use proper safety devices to ensure your personal safety.
- Always use approved tools and test equipment for servicing.
- Never assume the product's power is disconnected from the main power supply. Check that it is disconnected before opening the product's cabinet.
- Modules containing electrical components are sensitive to electrostatic discharge (ESD). Follow ESD safety procedures while handling these parts.
- Some products contain more than one battery. Do not disassemble or expose a battery to high temperatures, such as throwing into fire, or the battery may explode.
- Refer to government requirements for battery recycling or disposal.

This information provides general service information for the monitor. Adherence to the procedures and precautions is essential for proper service.

IMPORTANT: Only trained service personnel who are familiar with this HP product should perform service or maintenance for it. Before performing any service or maintenance, personnel must read the important safety information.

IMPORTANT: You must disconnect the power cord from the power source before opening the monitor to prevent component damage.

Important service information and precautions

- Repair must be performed by professional service technicians in a repair center.
 End users should not perform these procedures.
- Please note during servicing that the primary side is the high voltage area.
- This monitor meets ROHS requirements. Be sure to use lead-free solder wire when soldering.
- If you must change a capacitor, be sure to match the polarity as printed on the PCB.
- If you must replace a capacitor, make sure the specification and part number match the BOM and location.
- If you must replace a capacitor, insert new parts carefully to avoid a short circuit caused by the near pin.
- Do not get the board wet. Water and moisture can cause a short circuit that causes malfunctions.
- To avoid damage, be sure to use lead-free solder.
- When soldering, work quickly to avoid overheating the circuit board.
- Keep the soldering iron tip clean and well tinned when replacing parts.
- After repair, perform a close inspection of the circuit board to confirm it is in good condition.
- After repair, perform a function test to confirm the power supply is working properly.

ERP Lot5 requirement

- 1. A professional repairer must have the technical competence to repair electronic displays and comply with the applicable regulations for repairers of electrical equipment in the Member States where the repairer operates. Reference to an official registration system as professional repairer, where such a system exists in the Member States, shall be accepted as proof of compliance.
- 2. A professional repairer must have insurance that covers liabilities resulting from repairs, regardless of whether required by the Member State.

RoHS (2002/95/EC) requirements

Applied to all countries that require RoHS.

The RoHS (Restriction of Hazardous Substance in Electrical and Electronic Equipment Directive) is a legal requirement by the EU (European Union) for the global electronics industry sold in the EU and other countries. Any electrical and electronics products launched in the market after June 2006 should meet this RoHS requirement. Products launched in the market before June 2006 are not required to be compliant with RoHS parts. If the original parts are not RoHS complaint, the replacement parts can be non-ROHS complaint. If the original parts are RoHS compliant, the replacement parts MUST be RoHS complaint.

If product service or maintenance requires replacing parts, confirm the RoHS requirement before replacement.

General descriptions

This manual contains general information. There are two levels of service:

Level 1: Cosmetic/appearance/alignment service

Level 2: Circuit board or standard parts replacement

Firmware updates

Firmware updates for the monitor are available at <u>support.hp.com</u>. If no firmware is posted, the monitor does not need a firmware update.

Before returning the repaired product to the customer

Perform an AC leakage current check on exposed metallic parts to be sure the product is safe to operate without the potential of electrical shock. Do not use a line isolation transformer during this check.

Measurements that are not within specified limits present a possible shock hazard. You must check and repair the product before returning it to the customer.

2. Monitor features

This chapter provides an overview of the monitor's features.

Features

Depending on the model, your monitor might include the following features:

Display features

- 86.72 cm (34.14 in) diagonal viewable screen area with 3440 × 1440 resolution, plus full-screen support for lower resolutions; includes custom scaling for maximum image size while preserving original aspect ratio
- Liquid crystal display (LCD) with active matrix and in-plane switching (IPS)
- Wide color gamut to provide coverage of sRGB color spaces
- Nonglare panel with an LED backlight
- Wide viewing angle to allow viewing from a sitting or standing position, or moving from side to side
- Tilt, swivel, and height adjustment capabilities
- Integrated KVM (Keyboard/Video/Mouse) switch with keyboard-based input switching
- Dual Picture in Picture (PiP) and Picture beside Picture (PbP) functionality to enable the DisplayPort, HDMI, and USB Type-C inputs to be viewed in each half of the screen (select products only)
- On-screen display (OSD) adjustments in several languages for easy setup and screen optimization
- Color space presets for sRGB, P3 D65, and BT.709
- Energy saver feature to meet requirements for reduced power consumption
- Security cable slot on the rear of the monitor for an optional security cable
- Cable management feature for placement of cables and cords

Connectors

- DisplayPort[™] video input (cable included)
- High-Definition Multimedia Interface™ (HDMI) video input
- USB Type-C® port
- USB hub with one USB Type-C port that connects to the computer (upstream) and four USB ports that connect to USB devices (downstream)
- USB Type-C—to—USB Type-C DisplayPort Alt Mode, up to 90 W power delivery cable (select products only)
- USB Type-C-to-USB Type-A cable (select products only)
- DisplayPort cable (select products only)

- Plug and Play capability, if supported by your operating system
- RJ-45 (network) jack (select products only)

Monitor stand

- Removable stand for flexible monitor head mounting solutions
- HP Quick Release 2 device to quickly attach the monitor head to the stand with a simple click, and then remove it with the convenient sliding tab release
- VESA® mounting bracket for attaching the monitor head to a wall-mount device or swing arm
- VESA mounting capability (100 × 100 mm) for attaching the monitor to a swing arm mount
- Support for a mounting bracket to attach the monitor to a workstation

NOTE: For safety and regulatory information, see the Product Notices provided in your documentation kit. To access the latest user guide, go to http://www.hp.com/support, and follow the instructions to find your product. Then select Manuals.

Front components

To identify the power button on the front of the monitor, use this illustration.

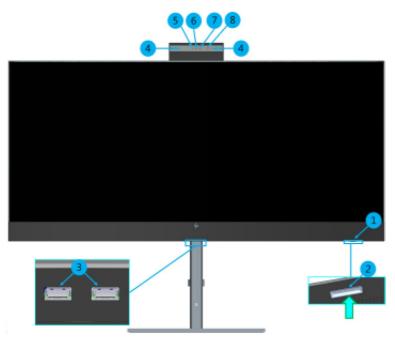


Table 1-1: Front components and their descriptions

(1-2)	Power button (with power light)
(3)	USB port Battery charging 1.2
(4)	Microphones
(5)	Camera light
(6)	RGB lens
(7)	IR lens
(8)	IR lights

Rear components

To identify the components on the rear of the monitor, use this illustration and table.

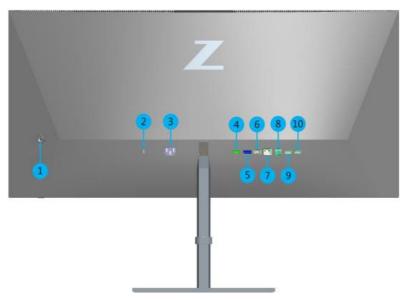


Table 1-2: Rear components and their descriptions

Compo	onent	Description
(1)	OSD control	Activates the OSD buttons so that the button labels appear on the right side of the screen.
(2)	Security cable slot	Connects an optional security cable.
(3)	Power connector	Connects the power cord.
(4)	HDMI port	Connects the HDMI cable to a source device such as a computer.
(5)	DisplayPort connector	Connects a DisplayPort cable to a source device such as a computer.
(6)	USB Type-C port with DP Alt Mode 1.4, USB upstream data, and maximum power delivery up to 90 W	Connects the USB Type-C cable to a source device such as a computer. Charges most USB Type-C devices even when the monitor is in sleep mode. NOTE: The monitor must be set to Performance Mode. This port also enables the USB Type-A ports to perform their functions.
(7)	RJ-45 (network) jack	Connects an RJ-45 Ethernet network cable to the monitor.
(8)	USB Type-B port(upstream)	Connects the USB Type-B cable to a source device, such as a computer, or game console. NOTE: A USB Type-B cable or a USB Type-C cable must be connected from the source device to the monitor to enable USB Type-A ports on the monitor.
(9)	KVM keyboard port	Connects a keyboard to the display.
(9-10)	USB port	Connects a USB cable to a peripheral device, such as a keyboard, mouse, or USB hard drive.

Locating the serial number and product number

The SPEC label is located on the rear of the monitor. The serial number and product number are located on a SPEC label. You may need these numbers when contacting HP about the monitor model.



For worldwide models (except India):



For India:



3. Illustrated parts catalog

To identify the monitor major components, use this illustration and table.

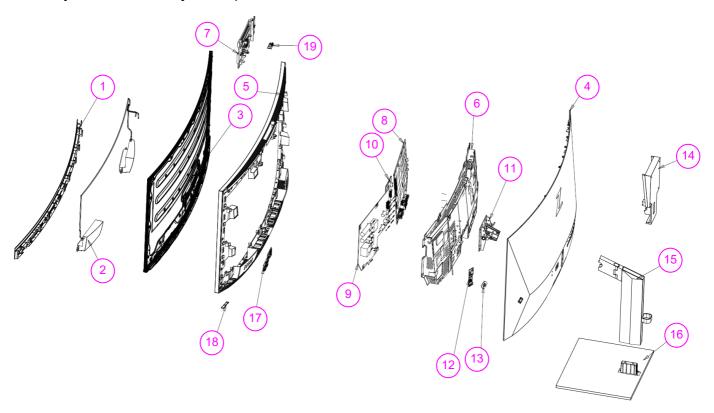


Table 2-1: Monitor major components and their descriptions

Item	Description	Qty	
1	DECO-CHIN	1	
2	Speaker	1	
3	PANEL	1	
4	ASSY RC	1	
5	MID FRAME	1	
6	SHD MAIN	1	
7	WEBCAM MODULE	1	
8	Main BD	1	
9	Power BD	1	
10	LED DRV BD	1	
11	HINGE	1	
12	CTRL BD	1	
13	CAP JOYSTICK	1	

14	WALL-MOUNT BKT	1
15	CLMN	1
16	BASE	1
17	USB BD	1
18	LENS BD	1
19	SENSOR BD	1

How to order parts

The HP authorized repair center can purchase power board from HP.

Power board:

Description	HP Spares Part Number	Manufacturer Part Number
SPS-IPS Z34c G3, LGD 5E.58402.001	N06322-001	5E.58402.001

Capacitors and connectors available for purchase from EU distributor

• Farnell: Farnell UK - Electronic Components Distributor

RS Component: <u>Capacitors | RS Components (rs-online.com)</u>

Capacitors by Distributor:

Supusition by Biothibutor.			
Component Description	Location	Component Distributor	Distributor
Capacitor 470 µF	C706; C707	RS	25YXJ470M10X12.5
25V 10*12.5 10K	C700, C707	Farnell	25ZLH470MEFC10X12.5
Capacitor 1000 µF	C711; C712; C713;	RS	NRZJ102M25V10X20F
25V 10*20 10K	C714;	Farnell	25ZLH1000MEFC10X20

Connectors by Distributor:

Component Description	Location Identifier	Component Distributor	Part number of Manufacturer/ Distributor
HDMI	J401	RS	Molex 47659-1101
RJ45	JF1	Farnell	AMPHENOL ICC GSB422137EU
USB Type B	JA1	Farnell	AMPHENOL ICC GSB422137EU

NOTE: The connector may need to be modified to meet functionality, regulatory and safety requirements if it is not an exact match.

You can purchase cables from the HP part store at https://partsurfer.hp.com/Search.aspx.

NOTE: HP continually improves and changes product parts. For complete and current information about supported parts for your computer, go to http://partsurfer.com, select your country or region, and then follow the on-screen instructions.

Internal and External Power Supplies are available for purchase from the following EU distributor: EET https://www.eetgroup.com/en-eu/

4. Removal and replacement procedures

Adherence to these procedures and precautions is essential for proper service.

Preparation for disassembly

Use this information to properly prepare to disassemble and reassemble the monitor. Use this information to properly prepare to disassemble and reassemble the monitor.

- 1) Clean the room for disassembly.
- 2) Identify the disassembly area.
- 3) Check the position that the monitors are to be placed along with the number of monitors. Prepare the area for material flow according to the disassembly layout.
- 4) Be sure to have the following equipment and materials:
 - Press fixture
 - Working table
 - Screwdriver
 - Knife
 - Gloves
 - Cleaning cloth
 - ESD protection
 - Curve sponge Jig- CS.5J584.001
 During assembly and disassembly, please place curve sponge jig to avoid damaging the panel.

Item	Qisda P/N	Description	Photo
1	CS.4G584.001	SPONGE JIG Z34c G3 CURVE	

Disassembly procedure

Rear Cover

S1

1) Disassemble RC from the monitor and pull out BTN BD wire from the Main BD.

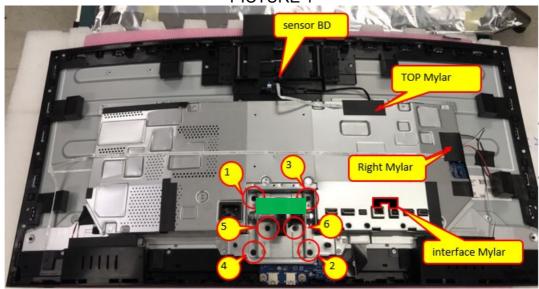
PICTURE 1

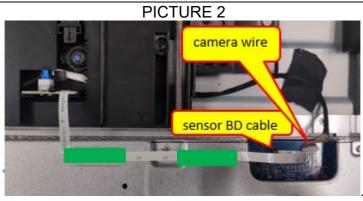


S2

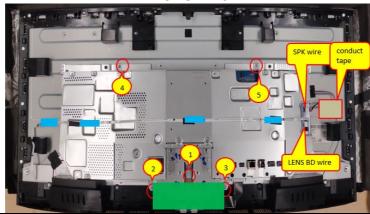
- 1) Unlock 6 screws and disassemble Hinge from the SHD as the picture 1.
- 2) Tear off the TOP Mylar, interface Mylar and Right Mylar from the SHD as the picture 1.
- 3) Pull out sensor BD cable and camera wire from the Main BD as the picture 2.
- 4) Disassemble sensor BD from the camera and pull out sensor BD cable from the sensor BD as the picture 2.
- 5) Tear off conduct tape and then pull out LENS BD wire and SPK wire from the Main BD as the picture 3.
- 6) Unlock 5 screws from the SHD as the picture 3.
- 7) Tear off the long acetate tapes and pull out the FFC, EDP and driver BD wire from the Main BD.

PICTURE 1



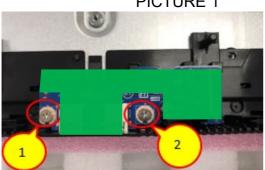


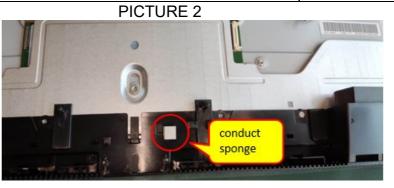
PICTURE 3



- S3 1) Unlock 2 screws and disassemble USB BD from the MF as the picture 1.
 - 2) Tear off the conduct sponge from the MF as the picture 2.
 - 3) Tear off 4 acetate tapes from Panel as the picture 3.
 - 4) Tear off the acetate tape from the camera wire as the picture 4.
 - 5) Unlock 20 screws from the MF as the picture 3.
 - 6) Unlock 6 screws and disassemble the camera from the MF as the picture 4.

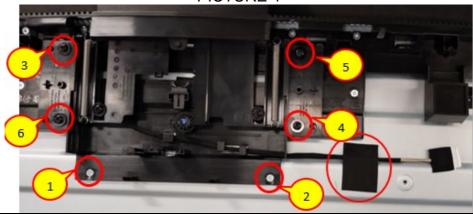




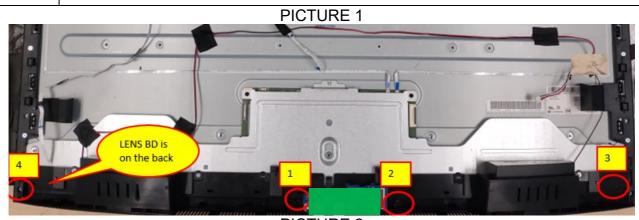


PICTURE 3 16 17 19 20 11 10 19 10 10 19

PICTURE 4

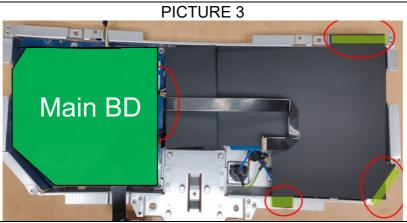


- **S5**
- 1) Unlock 4 screws from the DECO as the picture 1.
- 1) Disassemble MF from the monitor as the picture 1.
- 2) Unlock 4 screws from the SPK as the picture 2.
- 3) Disassemble Power BD Mylar from the Power BD as the picture 3.

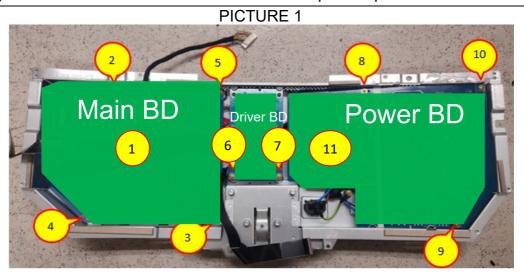


PICTURE 2





- **S6**
- 1) Unlock 11 PCBA screws as the picture 1.
- 2) Disassemble Main BD from the SHD and pull out Power BD wire from the Main BD.
- 3) Disassemble Power BD from the SHD and pull out power cord from the Power BD.



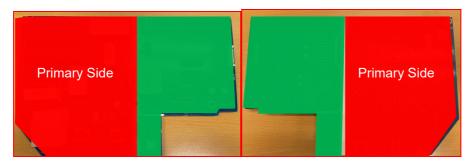
Power board

- The power board part number is 5E.58402.001. This board is a direct replacement for 5E.58402.001
- Locate PN on the red frame as follow image.



IMPORTANT:

- Repairing must operate by professional repairers in HP repair center, not applicable for end user
- The primary side is the high voltage area, please take care when repair (Front and Back view)



• After repaired, must check Power board function is ordinary

Power board- Capacitor repair

Repair Condition: Capacitor repair is only for the monitor that has been out of warranty period.

IMPORTANT:

- Repairing must operate by <u>professional repairers (Note)</u> in repair center, not applicable for end user
- The primary side is the high voltage area, please take care when repair (Front and Back view)



- Electrostatic protection is required when component replacement is required.
- The monitor meets ROHS, please use Lead-free solder wire for soldering.
- If capacitor need change, please check polarity match PCB print.
- If capacitor need to replace, must check specification and part number whether match the BOM and location.
- If capacitor need to replace, please insert new parts carefully because the near pin may cause short circuit by inappropriate operate.
- DO NOT allow any liquid on the board. Water and moisture may cause shortcircuit to the electronic components and lead to malfunctions.
- The fusion point of Lead-Free solder is requested. Repairing with conventional lead wire may cause damage.
- Work quickly to avoid overheating the circuit board as soon as you confirm the steady soldering condition.
- Keep the soldering iron tip clean and well tinned and when replacing parts.
- A close inspection of the circuit board revealed look in good condition.
- After repaired, must do function test to check PSU function is ordinary.

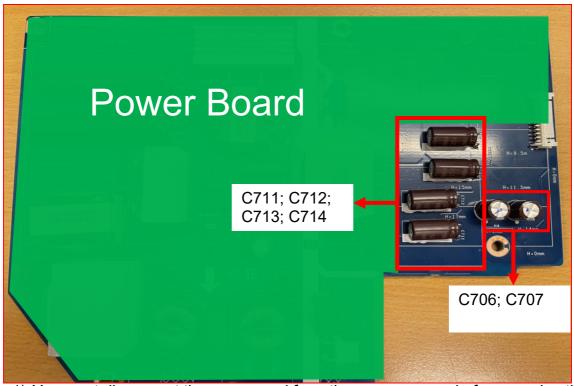
Note: (The requirement of professional repairers' regulation by ERP lot5)

- (1) The professional repairer has the technical competence to repair electronic displays and complies with the applicable regulations for repairers of electrical equipment in the Member States where it operates. Reference to an official registration system as professional repairer, where such system exists in the Member States concerned, shall be accepted as proof of compliance with this point.
- (2) The professional repairer is covered by insurance covering liabilities resulting from its activity, regardless of whether this is required by the Member State.

Repair Process:

When EL capacitors damage or explode, it may lose function and cause product no work.

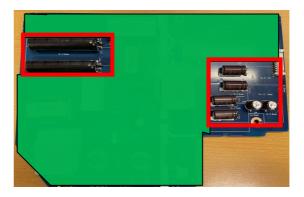
The locations are identified below:



- You must disconnect the power cord from the power source before opening the monitor to prevent component damage.
- 2) Use Multimeter measure whether EL capacitors still have charge. Before repairing must discharging it.

Capacitors in following picture need to discharging.



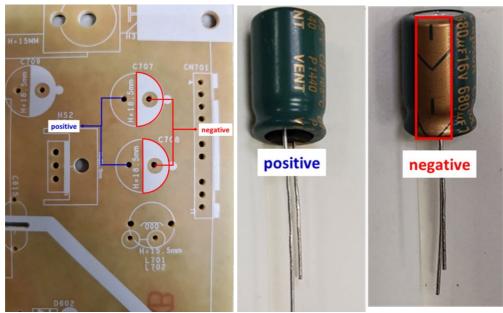


3) Lift capacitors from the PCB.



4) Place new component on the location, and must check polarity match PCB print.





5) After repaired, please double check whether polarity match PCB print, solder empty and unnecessary solder after soldering must remove.

Connector repair

Repair Condition: Connector repair is only for the monitor that has been out of warranty period.

- The repair procedure is for HDMI, RJ45 and USB Type B connectors.
- The connectors are on the main board (Main board part number 5E.58401.001).
- Please refer to the location to repair the correct parts:

Connector	Location
НДМІ	J401
RJ45	JF1
USB Type B	JA1



IMPORTANT:

- Repair Condition: Connector repair is only for out of warranty.
- Repairing must operate by <u>professional repairers (Note)</u> in repair center, not applicable for end user.
- Electrostatic protection is required when component replacement is required.
- The monitor meets ROHS, please use Lead-free solder wire for soldering.
- If Connector need to replace, must check specification and part number whether match the BOM and location.
- If connector need to replace, please insert new parts carefully because the near pin may cause short circuit by inappropriate operate.
- DO NOT allow any liquid on the board. Water and moisture may cause shortcircuit to the electronic components and lead to malfunctions.
- The fusion point of Lead-Free solder is requested. Repairing with conventional lead wire may cause damage.
- Work quickly to avoid overheating the circuit board as soon as you confirm the steady soldering condition.
- Keep the soldering iron tip clean and well tinned and when replacing parts.
- A close inspection of the circuit board revealed look in good condition.
- After repaired, must connect source to each port to check Main board function is ordinary.

Note: (The requirement of professional repairers' regulation by ERP lot5)

- (1) The professional repairer has the technical competence to repair electronic displays and complies with the applicable regulations for repairers of electrical equipment in the Member States where it operates. Reference to an official registration system as professional repairer, where such system exists in the Member States concerned, shall be accepted as proof of compliance with this point.
- (2) The professional repairer is covered by insurance covering liabilities resulting from its activity, regardless of whether this is required by the Member State.

HDMI Connector repair- J401

1) Use a soldering iron and a de-soldering pump to remove as much solder as possible from one of the pin.



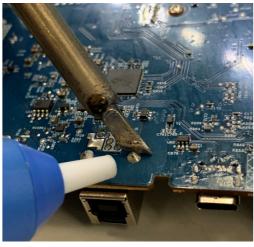
2) Use a hot air gun to melt the solder on the pins



- 3) Lift connector from the PCB
- 4) Place new component on the location, and must check it can match PCB footprint
- 5) Soldering the new component by solder iron

RJ45 Connector repair- JF1

- 1)Use a hot air gun to melt the solder on the pins Pin solder with soldering iron and absorber.
- 2)You can gently push down with the soldering iron once everything is molten to move the connector out of the through holes

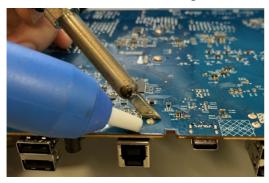




- 3) Lift connector from the PCB
- 4) Place new component on the location, and must check it can match PCB footprint
- 5) Soldering the new component by solder iron

USB Type B Connector repair- JA1

- 1) Use a hot air gun to melt the solder on the pins Pin solder with soldering iron and absorber.
- 2) You can gently push down with the soldering iron once everything is molten to move the connector out of the through holes





- 3) Lift connector from the PCB
- 4) Place new component on the location, and must check it can match PCB footprint
- 5) Soldering the new component by solder iron

Function Test:

After repair, be sure to confirm that all functions are working.

Table 4-1: Function test

Test item	Operating description	Tool used
HDMI test	Confirm whether image displays and sound plays correctly on the monitor.	Computer or DVD player
Network test	Plug in network wire and RJ45 green light on.	Network wire
USB test	Connected USB wire with PC and Monitor. Connected USB drive to check USB function ok.	USB wire and PC

Support and Troubleshooting

The following table lists possible problems, the possible cause or each problem, and the recommended solutions.

Table 4-2: Solving common problems

Problem	Possible cause	Solution
Screen is blank or video is flashing.	Power cord is disconnected.	Connect the power cord.
	Monitor is off.	Power the power button. NOTE: If pressing the Power button has no effect, press and hold the power button for 10 seconds to disable the Power button lockout feature.
	Video cable is improperly connected.	Connect the video cable properly.
	System is in Sleep mode.	Press any key on the keyboard or move the mouse to exit Sleep mode.
	Video card is incompatible.	Open the OSD menu and select the Input Control menu. Set Auto-Switch Input to Off and manually select the input
Image appears blurred, indistinct, or too dark.	Brightness is too low.	Open the OSD menu and select Brightness to adjust the brightness scale as needed.
Check Video Cable is displayed on screen.	Monitor video cable is disconnected.	Connect the appropriate video signal cable between the computer and monitor. Be sure that the computer power is off while you connect the video cable.
Input Signal Out of Range is displayed on screen.	Video resolution and/or refresh rate are set higher than what the monitor supports.	Change the settings to a supported setting.
The monitor is off, but it did not seem to enter into Sleep mode.	The monitor's power saving control is disabled.	Open the OSD menu and select Power Control > Auto-Sleep Mode and set auto-sleep to On .
On-Screen Menus are Locked is displayed.	The monitor's OSD lock function is enabled.	Press and hold the Menu button on the front bezel to 10 seconds to disable the OSD lockout function.
Power Button is Locked is Displayed	The monitor's power button is locked.	Press and hold the power button for 10 seconds to disable the power button lock function.

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